

# AT3818 DIGITAL LCR METER

## High speed and precision

## DCR Measurement

### Continuous testing frequency

# 10Hz~300kHz

AT3818 is a precision LCR digital bridge, a micro desktop instrument controlled by a high-performance 32-bit ARM microprocessor for fully automatic real-time detection. The instrument can choose any testing frequency between **10Hz~300kHz**, and can choose a testing signal level between 0.01V and 2.00V in steps of 0.01V. It has built-in -2.5V~+2.5V programmable DC bias, automatic measurement of inductance L, capacitance C, resistance R, complex impedance Z, quality factor Q, loss angle tangent D, phase angle  $\theta$  (degree), phase  $\theta$  (radians) and DC resistance DCR.

CHINESE/ENGLISH  
OPERATION

264 (W) \* 107 (H) \* 350 (D)  
UNIT: mm

Weight: 4kg



Power Voltage: 90V-260VAC Frequency: 50Hz~60Hz  
Max power: 30VA

## MODEL AT3818

Parameters	Cs-Rs,Cs-D,Cp-Rp,Cp-D,Lp-Rp,Lp-Q,LS-Rs,LS-Q,R-X,Z- $\theta$ rad,Z- $\theta$ deg <b>DCR</b>
Monitor Parameters	Z, D, Q, $\theta$ r, $\theta$ d, R, X, G, B, Y, Vac, Iac, $\Delta$ , $\Delta$ %
Accuracy	slow / medium speed: : 0.05%±5dgt ; fast speed: 0.1%
Frequency	10Hz ~ 300kHz (continuous, resolution 0.001Hz)
Range	Auto, Manual & Nominal, 9 ranges
Display	L: 0.00001 $\mu$ H-9999.99H C: 0.00001pF - 9999.99mF R,X,Z: 0.00001 $\Omega$ - 99.9999M $\Omega$ D, 0.00001 - 9.99999 Q: 0.00001 - 99999.9 $\Delta$ %: -999999% - 999999% $\theta$ (deg): -179.999 $^{\circ}$ -179.999 $^{\circ}$ $\theta$ (rad):-3.14159 - 3.14159 <b>DCR: 0.00001<math>\Omega</math>~99.9999M<math>\Omega</math></b>
Signal level	0.01V ~ 2.00V (10mV step) <b>ALC function</b>
Test speed	40t/S,10t/S,3t/S (with average function)
DC Bias	<b>-2.5V~+2.5V (0.5%+0.005V)</b>
Max display	6 digital principle parameter, sub parameter, monitor parameter: 999999
Source Resistance	30 $\Omega$ , 50 $\Omega$ & 100 $\Omega$
Comparator	14-bin sorting, 10 bin GD, 1 bin NG, 1 bin AUX, 2 bin principle parameter NG, Count function: Max 999999
List test	10 groups frequency and level scanning measurement
Calibration	open & short circuit sweep frequency, correction, 3 point frequency, correction and load calibration.
Interface	Handler interface and RS232 interface
Other	Automatic LCZ, keyboard lock, SCPI instruction set, <b>store 999 LCD screens, trigger delay, built-in SCPI and Modbus protocols</b>
Files	10 groups files to save user's setting, 1 group to save system data real-time
Accessories	ATL501E Test cable; ATL601 Test Fixture; ATL600 short-circuit; ATL108A communication cable; ATL508A SMD patch Test Fixture; ATL103 USB cable
Optional	ATL608 SMD Chip mounting fixture; ATL508 SMD patch Test Fixture;